BEFORE THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION OF THE STATE OF MONTANA

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APPLICATION TO CHANGE WATER RIGHT NO. 40A 30155099 BY COONEY BROTHERS FAMILY PARTNERSHIP, COONEY, CAVAN SPENCER LLC	)))	**PRELIMINARY DETERMINATION TO GRANT CHANGE**

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On March 10, 2022, SARAH E NASH, RACHEL L NASH, COONEY BROTHERS FAMILY PARTNERSHIP, COONEY, CAVAN SPENCER LLC (Applicant) submitted Application to Change Water Right No. 40A 30155099 to change Water Right Claim No. 40A 113138-00 to the Lewistown Regional Office of the Department of Natural Resources and Conservation (Department or DNRC). The Department published receipt of the Application on its website. The Department sent the Applicant a deficiency letter under §85-2-302, Montana Code Annotated (MCA), dated July 13, 2022. The Applicant responded with information dated October 7, 2022. The Application was determined to be correct and complete as of January 5, 2023.

The Department met with the Applicant for a pre-application meeting on March 10, 2022, and again on October 7, 2022 for a meeting regarding deficiencies note in the deficiency letter. An Environmental Assessment for this Application was completed on January 25, 2023.

INFORMATION

The Department considered the following information submitted by the Applicant, which is contained in the administrative record.

Application as filed:

- Application to Change an Existing Irrigation Water Right, Form 606-IR
- Pre-Application Meeting Form
- Attachments
    - Sage Grouse Letter from Montana Sage Grouse Conservation Program dated February 28, 2018
- Map packet including maps showing historical and proposed irrigation areas, diversions, and conveyances.
- Irrigation information from Watson Irrigation Specialists
- Historical Use Addendum

Information Received after Application Filed

- Deficiency Response in the form of revised application received October 7, 2022.

Information within the Department's Possession/Knowledge

- NRCS Web Soil Survey for Wheatland County area, Montana
- DNRC surface and groundwater right records
- Department Technical Report dated January 5, 2023
- 1949 Water Resources Survey (WRS) and field notes for Wheatland County
- USDA Aerial Photograph 178-140 dated August 23, 1979
- USDA Aerial Photograph 178-34 dated August 23, 1979

The Department also routinely considers the following information. The following information is not included in the administrative file for this Application but is available upon request. Please contact the Lewistown Regional Office at 406-538-7459 to request copies of the following documents.

- DNC Return Flow Policy Memorandum, dated April 1, 2016
- DNRC Consumptive Use and Irrecoverable Loss Memorandum, dated April 15, 2013
- DNRC Change in Irrigation Method Policy Memorandum, dated December 2, 2015
- DNRC Historic Diverted Volume Standard Methodology Memorandum, dated September 13, 2012

The Department has fully reviewed and considered the evidence and argument submitted in this Application and preliminarily determines the following pursuant to the Montana Water Use Act (Title 85, Chapter 2, Part 3, Part 4, MCA).

WATER RIGHT TO BE CHANGED

FINDINGS OF FACT

1. The claim proposed for change is Statement of Claim No. 40A 113138-00 with a priority date of May 15, 1884. The claimed point of diversion is the Cooney Ditch #2 headgate at the

SWSESW Section 27 T6N R15E and the claimed conveyance is by means of the Cooney Ditch #2. Claim 40A 113138-00 has a claimed flow rate of 3.00 cubic feet per second (CFS) from Fish Creek, tributary to the Musselshell River, to flood irrigate 242 claimed acres in Sections 23, 24, 25, 26 and 27 of T6N R 15E. The claimed period of diversion and period of use are April 15 – October 1 each year. The claimed point of diversion is approximately 13 miles south of Harlowton, MT. Table 1 lists the elements of the claim proposed for change.

Table 1: ELEMENTS OF THE CLAIM PROPOSED FOR CHANGE

W.R. NO.	FLOW	ACRES	PURPOSE	PERIOD OF USE	PLACE OF USE	POINT(S) OF DIVERSION	PRIORITY DATE
40A 113138-00	3.00 CFS	242	IRRIGATION	April 15 to October 1	All in T6N R15E: Sec. 23 S2SE Sec 25 NW Sec. 26 ALL Sec. 27 S2SE	T6N R16E Sec. 19 SWSWSW	June 1, 1899

2. There are no previous change versions of 40A 113138-00.

CHANGE PROPOSAL

FINDINGS OF FACT

3. Applicant proposes to change the place of use for Statement of Claim No. 40A 113138-00. The Applicant proposes to change the place of use of this claim and add a point of diversion. They are retiring the 32.83 acres in Section 25, T6N R15E in conjunction with the addition of acreage to claim 40A 113145-00 per pending Change Application No. 40A 30155100. The 24.78 AF historically consumed volume associated with the 32.83 retired acres will be used to supplementally irrigate 191.65 acres with Claim 40A 113145-00. A flow rate of 3 CFS minus the amount moved to the added diversion and volume of 625.71 AF (650.49 – 24.78 = 625.71) will

continue being diverted into the Cooney Ditch #2 point of diversion for the irrigation of 209.19 acres remaining in the historical place of use of Claim 40A 113138-00. The total flow rate and volume that will be diverted with this claim after this change is up to 3 CFS up to 625.71 AF. Any flow rate diverted to the said added point of diversion must be subtracted from the original point of diversion so as to not exceed the historical flow rate of 3 CFS at any given time.

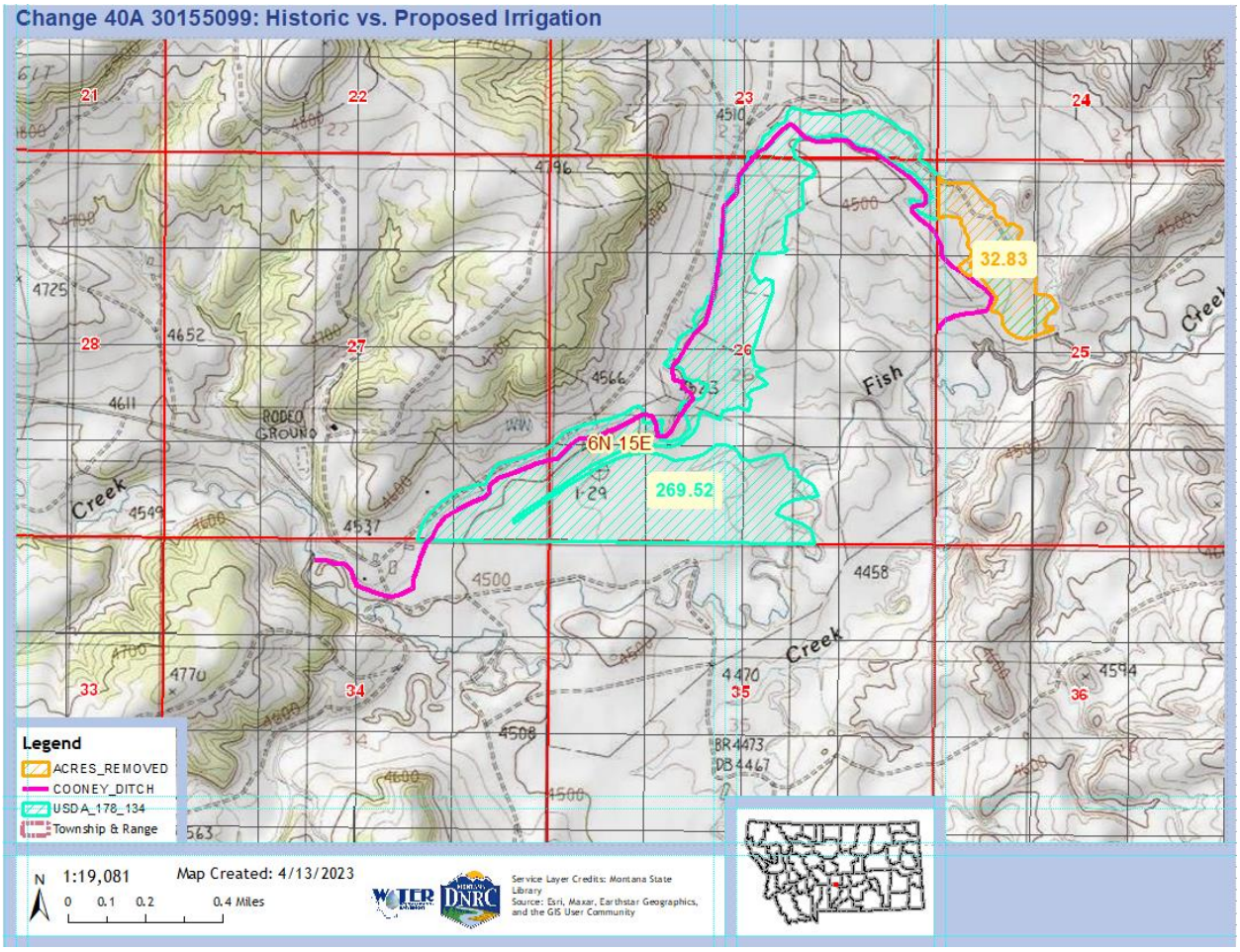
4. The Applicant proposes to add a point of diversion to Claim 40A 113138-00 to use the same Cooney Ditch #1 point of diversion and Cooney Ditch #1 means of conveyance associated with Claim 40A 113145-00, diverted at the SWSWSW of Section 19, T6N, R16E. After this change the total flow rate and volume that claim 40A 113138-00 can divert into the Cooney Ditch #1 headgate to irrigate 191.65 new acres is up to 3 CFS (not to exceed 3 CFS between Cooney Ditches 1 and 2 combined). and 24.78 AF. The total volume that claim 40A 113138-00 can divert into the Cooney Ditch #2 is 625.71 AF.

5. There will be no change in purpose, and no change in the pattern of use of the remaining acres which are not supplementing claim 40A 113145-00.

6. This Authorization will be subject to the following measurement condition:

> The Appropriator shall install a department-approved measuring device in the conveyance facility as near as practical to the point of diversion, in order to measure the total flow rate and volume appropriated annually. The type and location of the device must be approved by the Department. The Appropriator shall keep a written record of the flow rate and volume of water diverted, including the period of time of diversion, under this authorization. Records shall be submitted by December 31 of each year until a project completion notice has been received by the Department, and upon request by the Department thereafter. Failure to submit reports may be cause for revocation of the change. Records must be sent to the Lewistown Water Resources Regional Office. The Appropriator shall maintain the measuring/monitoring device so it always operates properly and measures flow rate accurately during periods of appropriation.

Map 1: Post-Change Place of Use (Blue) vs. Retired (Orange) Place of Use



CHANGE CRITERIA

7. The Department is authorized to approve a change if the applicant meets its burden to prove the applicable § 85-2-402, MCA, criteria by a preponderance of the evidence. Matter of Royston, 249 Mont. 425, 429, 816 P.2d 1054, 1057 (1991); Hohenlohe v. DNRC, 2010 MT 203, ¶¶ 33, 35, and 75, 357 Mont. 438, 240 P.3d 628 (an applicant's burden to prove change criteria by a preponderance of evidence is "more probably than not."); Town of Manhattan v. DNRC, 2012 MT 81, ¶8, 364 Mont. 450, 276 P.3d 920. Under this Preliminary Determination, the relevant change criteria in §85-2-402(2), MCA, are:

> (2) Except as provided in subsections (4) through (6), (15), (16), and (18) and, if applicable, subject to subsection (17), the department shall approve a change in appropriation right if the appropriator proves by a preponderance of evidence that

the following criteria are met:
(a) The proposed change in appropriation right will not adversely affect the use of the existing water rights of other persons or other perfected or planned uses or developments for which a permit or certificate has been issued or for which a state water reservation has been issued under part 3.
(b) The proposed means of diversion, construction, and operation of the appropriation works are adequate, except for: (i) a change in appropriation right for instream flow pursuant to 85-2-320 or 85-2-436; (ii) a temporary change in appropriation right for instream flow pursuant to 85-2-408; or (iii) a change in appropriation right pursuant to 85-2-420 for mitigation or marketing for mitigation.
(c) The proposed use of water is a beneficial use.
(d) The applicant has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use or, if the proposed change involves a point of diversion, conveyance, or place of use on national forest system lands, the applicant has any written special use authorization required by federal law to occupy, use, or traverse national forest system lands for the purpose of diversion, impoundment, storage, transportation, withdrawal, use, or distribution of water. This subsection (2)(d) does not apply to: (i) a change in appropriation right for instream flow pursuant to 85-2-320 or 85-2-436; (ii) a temporary change in appropriation right for instream flow pursuant to 85-2-408; or (iii) a change in appropriation right pursuant to 85-2-420 for mitigation or marketing for mitigation.

8. The evaluation of a proposed change in appropriation does not adjudicate the underlying right(s). The Department's change process only addresses the water right holder's ability to make a different use of that existing right. E.g., Hohenlohe, at ¶¶ 29-31; Town of Manhattan, at ¶8; *In the Matter of Application to Change Appropriation Water Right No.41F-31227 by T-L Irrigation Company* (DNRC Final Order 1991).

HISTORIC USE AND ADVERSE EFFECT

FINDINGS OF FACT - Historic Use

9. The Applicant proposes to change the place of use of Statement of Claim No. 40A 113138-00. After this change, 32.83 acres within the 242-acre flood-irrigated claimed place of use will be retired from irrigation and a total of 209.17 acres will continue to be irrigated via flood irrigation.

10. Claim 40A 133138-00 has a claimed place of use consisting of 242 acres as decreed by the Montana Water Court. Department review of historical aerial imagery supports the irrigation of 269.52 acres as shown on USDA Aerial Photo 178-134 dated August 23, 1979. The 1949 Water Resources Survey shows evidence of irrigation on 308 acres. Based on this information,

the Department finds a maximum historically irrigated acreage of 242 acres for the claim being changed.

11. According to the Applicant, water was historically diverted from Fish Creek at a rate of 3.00 CFS via the Cooney Ditch #2 headgate and Cooney Ditch #2. There are two Cooney Ditches, one is diverted in Sec. 19 6N 16E (Cooney Ditch #1), while the other is diverted in Sec. 27 6N 15E (Cooney Ditch #2). The claim being changed in this application was historically conveyed into Cooney Ditch #2 only. 3.00 CFS is the flow rate claimed and decreed by the Montana Water Court for Claim 40A 113138-00. The Applicant used Manning's equation to support a maximum capacity of the Cooney Ditch #2 of 29.69 CFS. The estimated capacity of the Cooney Ditch #2 is based on ditch specifications provided in the application materials, including a top width of 3 feet, bottom width of 3 feet, depth of 2.5 feet, slope of 0.06% (from Gaia GPS topographic map) and Manning's roughness coefficient of 0.035. Claim 40A 113141-00 is owned by the Applicant, has a claimed flow rate of 1 CFS, and is the only other claim besides Claim 40A 113138-00 to list the Cooney Ditch #2 as a historical means of conveyance. The claims for Cooney Ditch #2 total 4.00 CFS (Table 2). Based on this information the Department finds a historical capacity of 29.69 CFS for the Cooney Ditch #2 and a maximum historical flow rate of 3 CFS for the claim being changed.

Table 2: Water Right Claims to Cooney Ditch #2

Water Right No	Flow Rate	Priority Date	Owner
40A 113138-00	3.00 CFS	May 15 1884	COONEY BROTHERS FAMILY PARTNERSHIP, RACHAEL L NASH COONEY, CAVAN SPENCER LLC, SARAH E NASH
40A 113141-00	1.00 CFS	MAY 15, 1884	COONEY BROTHERS FAMILY PARTNERSHIP

12. This capacity of Cooney Ditch #2 is substantially higher than the combined flow rates of the claims diverted through the ditch.

13. The Applicant elected to use the Department methodology outlined in ARM 36.12.1902(16) to calculate historic consumptive use. Using the Wheatland County (Harlowton) weather station Net Irrigation Water Requirement (IWR) of 17.83 inches per acre and a historical management factor of 46.6% on 242.00 acres, the historic consumptive use, not including irrecoverable losses, is 167.56 acre-feet (AF) (17.83 inches * 242.00 acres / 12 inches per foot * 0.466 = 167.56 AF). Per ARM 36.12.1902(17), the Department adds 5% of the historical field applied volume to account for irrecoverable losses on flood irrigation systems. Field applied volume is calculated as the historically consumed volume divided by on-farm efficiency. Using a flood irrigation efficiency of 55%, a standard efficiency for wild flood irrigation systems, the historical field applied volume is 304.66 AF (167.56 AF / 0.55 = 304.66 AF), and irrecoverable losses are 15.23 AF (304.66 AF * 0.05 = 15.23 AF). Based on this information, the Department finds the total annual historic consumptive use including irrecoverable losses for the 242.00-acre historical place of use is 182.79 AF (167.56 AF + 15.23 AF = 182.79 AF). Historic consumptive use is 0.76 AF/AC and historic applied volume is 1.26 AF/AC. See Appendix A for calculations.

14. Pursuant to 36.12.1902(10), the volume of historical conveyance losses is broken into 3 parts: seepage loss, vegetation loss and ditch evaporation.

15. Seepage loss of **310.6** AF is calculated as (wetted perimeter)(ditch length)(loss rate)(days)/43,560 ft2/acre. For the Cooney Ditch #2, seepage loss is 310.64 AF where the main ditch is 3 feet wide and 2.5 feet deep, wetted perimeter is 8', the ditch is 16,681 ft. long (3.16 miles), the loss rate of 0.6 is based on silt loam soils and 169 is the number of days the Applicant used the ditch (April 15 – October 1).

16. Vegetation loss of **32.04** AF is calculated as (% loss per mile)(flow in CFS)(days ditch is flowing)(ditch length in miles)*2. For the Cooney Ditch #2, total vegetation loss is 32.04 AF where percent loss per mile is a constant 0.0075, historic flow rate is 4 CFS, 169 days the Applicant used the ditch, 3.16-mile length and the unit conversion constant 2 is the number of AF/Day/CFS rounded up from 1.98 AF.

17. Ditch Evaporation of **3.16** AF is calculated as (surface area of ditch) (evaporation rate in ft./acre/yr., period adjusted) / 43,560 ft2 / acre. For the Cooney Ditch #2, the evaporation is **3.16 AF** where the main ditch is 3 ft. wide, 16,681 ft. long, and the period adjusted evaporation from Potts (1988) is 2.75 ft. (33 inches/year = 2.75 ft. /365*169 days = 2.75 ft.). The Department's historical conveyance loss calculation for the Cooney Ditch #2 are summarized in Table 3. Based

on this information, the volume of conveyance losses for the Cooney Ditch #2 is 259.38 AF (345.84*75% = 259.38).

18. The historic diverted volume for the diversion associated with claim claim is **650.49** AF. The Department uses the following formula to determine historic diverted volume: Historic Diverted Volume = (Volume historic consumptive use/On-farm efficiency) + Volume conveyance loss, pursuant to the methodology in ARM 36.12.1902(10). The historic consumptive use, not including irrecoverable losses is 167.56 AF. Using a flood irrigation efficiency of 55%, the field applied volume is 167.56 AF /0.55 = **304.66 AF**. Adding conveyance losses of **345.8** AF, total historic diverted volume of this claim is **650.49** AF.

Table 3: Historical Conveyance Loss

606 SW 40A 30155099 Cooney								
Historic Consumptive Volume (HCV) Flood Sprinkler	Wheatland Co / Harlowton Weather Station County Flood/Sprinkler ET *(Inches)*	Wheatland County 1964-1973 Management Factor *(Percent)*	Historic Acres	HCV AF *(minus IL)*	On-farm Efficiency *(Percent)*	Field Application AF	Historic Irrecoverable Losses *(IL) Flood 5%:*	**HCV AF *(Including IL)***
	17.83	***46.6%***	***242***	167.56	***55%***	304.66	15.23	**182.79**
Historic Diverted Volume (HDV)	HCV AF *(minus IL)*	On-farm Efficiency	Seasonal Conveyance Loss Volume (seepage loss + vegetation loss + ditch evaporation)	**Total HDV AF**				
	167.56	55%	345.84	**650.49**				
Seepage Loss:	Ditch Wetted Perimeter (Feet)	Ditch Length *(Feet)*	Ditch Loss Rate (ft3/ft2/day)	Days Irrigated	Seepage Loss *(/43560)*			
	8	***16681***	***0.60***	***169***	310.64			
Vegetation Loss:	% loss/mile	Historic Flow Rate (HFR) *(CFS)* =	Days Irrigated	ditch length *(miles)*	Vegetation Loss (*2)			
	0.0075	***4.00***	169	3.16	32.04			
Ditch Evaporation:	Ditch Width *(Feet)*	Ditch Length *(Feet)*	Evaporation *(Potts)*	Ditch Evaporation *(/43560)*				
	3.00	16681.00	***2.75***	3.16				
Proposed Consumptive Volume (PCV) Exising flood irrigation system	Wheatland Co / Harlowton Weather Station Flood/Sprinkler ET (Inches)	Wheatland County 1964-1973 Management Factor (Percent)	Proposed New Acres	PCV AF *(minus IL)*	On-farm Efficiency *(Percent)*	Field Application AF	Proposed Irrecoverable Losses (IL) Flood 5%	**PCV AF *(Including IL)***
Flood acres	***17.83***	***46.6%***	***-32.81***	-22.72	***55%***	-41.30	-2.07	-24.78
Proposed Consumptive Volume (PCV) Exising flood irrigation system	Wheatland Co / Harlowton Weather StationCenter Pivot Irrigation ET *(Inches)*	Wheatland County 1997-2006 Management Factor *(Percent)*	Proposed New Acres	PCV AF *(minus IL)*	On-farm Efficiency *(Percent)*	Field Application AF	Proposed Irrecoverable Losses (IL) Sprinkler 10%	**PCV AF *(Including IL)***
Pivot acres	***20.56***	***54.4%***	***0***	0.00	***90%***	0.00	0.00	0.00
Total			**-32.81**	**-22.72**		**-41.30**		**-24.78**

19. The historically diverted volume for Claim 40A 113138-00 is equal to the sum of the historical field application volume (304.66 AF) and the historical conveyance loss volume

(345.84). Based on this information, the historically diverted volume for Claim 40A 113138-00 is 650.49 AF. The Department finds the following historic use for Claim 4A 113138-00.

TABLE 3: HISTORIC USE

WR Claim #	Priority Date	Diverted Volume	Flow Rate	Purpose (Total Acres)	Consump. Use	Place of Use (Irrigated Acres)	Point of Diversion
40A 113138-00	5/15/1884	650.49 AF	3.00 CFS	Irrigation 242.00 acres	182.79 acre feet	All in T6N R15E: Sec. 23 S2SE Sec 25 NW Sec. 26 ALL Sec. 27 S2SE	T6N R15E Sec. 27 SWSESW

FINDINGS OF FACT – Adverse Effect

20. The Applicant proposes to change the place of use and add a point of diversion to Claim 40A 113138-00. After this change, 32.81 acres within the 242-acre historical place of use will be retired from irrigation, and the water used to historically irrigate the retired acres will be used to supplement the irrigation of an additional 191.65-acre place of use with Claim 40A 113145-00.

21. Considering that the total historical irrigated acreage is 242.00 acres; with 32.83 acres removed net change in acres is -32.83 AC leaving 209.17 acres under the proposed new place of use. 209.17 is the total number of historical acres that will be irrigated after this change.

22. The historical consumed volume (without irrecoverable losses) volume for 32.83 acres that will be retired after this change is 24.78 AF which equates to 0.75 AF/AC. The historical consumptive use volume for the full historical 242.00 acres is 182.79 AF which equates to 0.76 AF/AC.

23. Because change 40A 30155099 is retiring acreage to compensate for increased consumptive use under concurrent change 40A 30155100, a portion of the 3.00 CFS flow rate of claim 40A 113138-00 may be diverted from its decreed point of diversion to Cooney Ditch #1. The total diverted flow rate of claim 40A 113138-00 is not to exceed the 3.00 CFS flow rate at any time as decreed on that claim.

24. The proposed diverted volume for Claim 40A 113138-00 of 650.49 AF is equal to the sum of the conveyance loss volume (345.84 AF), remaining volume applied to the 209.17 unchanged acres of flood irrigation (279.87 AF) and the post-change field applied volumes supplemental to Claim 40A 113145-00 for the 82.51 'new' center pivot-irrigated acres (24.78 AF). Based on this information, the total post-change diverted volume for Claim 40A 113138-00 equals 650.49 AF, no less than the historical diverted volume of 650.49 AF, but 24.78 AF of that total will be allowed to be diverted into Cooney Ditch #1.

25. The post-change consumed and field application volumes required to irrigate the proposed 191.65-acre place of use of concurrent application 40A 30155100 are 167.89 AF and 222.85 AF, respectively. Claim 40A 113145-00 will provide a respective 143.11 AF and 181.55 AF of the total consumption and field application needs. After this change, the entire proposed place of use will be supplementally irrigated with Claim 40A 113138-00, which is being changed by the Applicant in this Change Application 40A 30155099. According to the Applicant, a total of 32.83 acres within the historical place of use of supplemental Claim 40A 113138-00 will be retired from irrigation to compensate for the increased consumption resulting from the irrigation of 82.51 new acres out of the 191.65 total acres which will be served with a center pivot. Pursuant to the Department's findings of historic use for Claim 40A 113138-00 made in the Preliminary Determination to Grant (pending) Change Application No. 40A 30155099, the historically consumed and field application volumes associated with the 32.83 acres that will be retired from irrigation within the historical place of use of Claim 40A 113138-00 are 24.78 AF and 41.30 AF, respectively. A flow rate of up to 3.00 CFS up to a volume of 24.78 AF will be diverted from Cooney Ditch #2 with Claim 40A 113138-00 to supplementally irrigate the post-change 191.65-acre place of use. Both water rights will be used at the same time after this change. The maximum flow rate and volume that may be used for post-change irrigation of 191.65 acres with Claim 40A 113145-00 after this change is 5 CFS up to 181.55 AF.

26. Because the water from the retired acres will be left instream so historically diverted flows are available during the historic period of diversion below the point of diversion for the next downstream appropriator, a monthly return flow analysis was not developed and will not be unless a valid objection is received.

27. In addition to the fact that the next downstream appropriator is over five miles downstream, no other claims will be adversely impacted because the total diverted and consumed volumes of water will be less than were diverted and consumed historically.

28. There will be no change to the historic timing of diversion.

29. This authorization will be subject to the following measurement condition in order to ensure the historic use of Claim 40A 113138-00 is not exceeded after this change:

> The Appropriator shall install a department-approved measuring device in the conveyance facility as near as practical to the point of diversion, in order to measure the total flow rate and volume appropriated annually. The type and location of the device must be approved by the Department. The Appropriator shall keep a written record of the flow rate and volume of water diverted, including the period of time of diversion, under this authorization. Records shall be submitted by December 31 of each year until a project completion notice has been received by the Department, and upon request by the Department thereafter. Failure to submit reports may be cause for revocation of the change. Records must be sent to the Lewistown Water Resources Regional Office. The Appropriator shall maintain the measuring/monitoring device so it always operates properly and measures flow rate accurately during periods of appropriation.

30. Applicant is able to respond to valid calls by senior water users and will do so by shutting down the diversion at the headgate.

31. The total proposed diverted volume for this claim is 650.49 AF, 625.71 AF via Cooney Ditch #2 and 24.78 AF via Cooney Ditch #1.

32. There are no known nonuse issues associated with this claim.

33. The Department finds there will be no adverse effect resulting from the proposed change to Claim 40A 113138-00 under the terms and conditions set forth in this Preliminary Determination.

BENEFICIAL USE

FINDINGS OF FACT

34. The Applicant proposes to use water for irrigation with Claim 40A 113138-00. Irrigation is identified as a beneficial use of water under MCA § 85-2-102.

35. The Applicant proposes to divert 625.71 AF via Cooney Ditch #2 and 24.78 AF via Cooney Ditch #1. The two diversions combined are not to exceed 3.00 CFS at any given time.

36. The Department finds the proposed flow rates and volumes to be a beneficial use of water.

37. As part of this change, 32.83 acres are being retired from flood irrigation to be used in Sections 19, 20, and 21 of Township 6 North, Range 16 East in pivots. The proposed change would result in 40A 113138-00 and 40A 113145-00 being supplemental.

38. After the proposed change, 625.71 AF will remain available to continue irrigating the remaining historic Place of Use.

ADEQUATE DIVERSION

FINDINGS OF FACT

39. The Applicants propose to use the same Cooney Ditch #2 point of diversion and Cooney Ditch #2 after this change. Cooney Ditch #1 and the associated headgate will be added to this claim as an additional point of diversion. Per FOF 13, Cooney Ditch #1 has a calculated capacity of 13.66 CFS, which is well above the 9 CFS which would be required to convey the entire flow rates of the two claims that are proposed to use the ditch, 40A 113138-00, and 40A 113145-00. The Department finds the proposed means of diversion, conveyance method and operation of the irrigation system are adequate for the proposed beneficial use.

POSSESSORY INTEREST

FINDINGS OF FACT

40. The Applicant signed the affidavit on the application form affirming the Applicant has possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use.

CONCLUSIONS OF LAW

HISTORIC USE AND ADVERSE EFFECT

41. Montana's change statute codifies the fundamental principles of the Prior Appropriation Doctrine. Sections 85-2-401 and -402(1)(a), MCA, authorize changes to existing claims, permits, and water reservations subject to the fundamental tenet of Montana water law that one may change only that to which he or she has the right based upon beneficial use. A change to an existing water right may not expand the consumptive use of the underlying right or remove the well-established limit of the appropriator's right to water actually taken and beneficially used. An increase in consumptive use constitutes a new appropriation and is subject to the new water use permit requirements of the MWUA. McDonald v. State, 220 Mont. 519, 530, 722 P.2d 598, 605 (1986)(beneficial use constitutes the basis, measure, and limit of a water right); Featherman v. Hennessy, 43 Mont. 310, 316-17, 115 P. 983, 986 (1911)(increased consumption associated with expanded use of underlying right amounted to new appropriation rather than change in use); Quigley v. McIntosh, 110 Mont. 495, 103 P.2d 1067, 1072-74 (1940)(appropriator may not expand a water right through the guise of a change – expanded use constitutes a new use with a new priority date junior to intervening water uses); Allen v. Petrick, 69 Mont. 373, 222 P. 451(1924)("quantity of water which may be claimed lawfully under a prior appropriation is limited to that quantity within the amount claimed which the appropriator has needed, and which within a reasonable time he has actually and economically applied to a beneficial use. . . . it may be said that the principle of beneficial use is the one of paramount importance . . . The appropriator does not own the water. He has a right of ownership in its use only"); Town of Manhattan, at ¶ 10 (an appropriator's right only attaches to the amount of water actually taken and beneficially applied); Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review,* Pg. 9 (2011)(the rule that one may change only that to which it has a right is a fundamental tenet of Montana water law and imperative to MWUA change provisions); In the Matter of Application to Change a Water Right No. 41I 30002512 by Brewer Land Co, LLC, DNRC Proposal For Decision and Final Order (2004).[1]

42. Sections 85-2-401(1) and -402(2)(a), MCA, codify the prior appropriation principles that Montana appropriators have a vested right to maintain surface and ground water conditions substantially as they existed at the time of their appropriation; subsequent appropriators may

[1] DNRC decisions are available at:
http://www.dnrc.mt.gov/wrd/water_rts/hearing_info/hearing_orders/hearingorders.asp

insist that prior appropriators confine their use to what was actually appropriated or necessary for their originally intended purpose of use; and, an appropriator may not change or alter its use in a manner that adversely affects another water user. Spokane Ranch & Water Co. v. Beatty, 37 Mont. 342, 96 P. 727, 731 (1908); Quigley, 110 Mont. at 505-11,103 P.2d at 1072-74; Matter of Royston, 249 Mont. at 429, 816 P.2d at 1057; Hohenlohe, at ¶¶43-45.[2]

43. The cornerstone of evaluating potential adverse effect to other appropriators is the determination of the "historic use" of the water right being changed. Town of Manhattan, at ¶10 (recognizing that the Department's obligation to ensure that change will not adversely affect other water rights requires analysis of the actual historic amount, pattern, and means of water use). A change applicant must prove the extent and pattern of use for the underlying right proposed for change through evidence of the historic diverted amount, consumed amount, place of use, pattern of use, and return flow because a statement of claim, permit, or decree may not include the beneficial use information necessary to evaluate the amount of water available for change or potential for adverse effect.[3] A comparative analysis of the historic use of the water right to the proposed change in use is necessary to prove the change will not result in expansion of the original right, or adversely affect water users who are entitled to rely upon maintenance of conditions on the source of supply for their water rights. Quigley, 103 P.2d at 1072-75 (it is necessary to ascertain historic use of a decreed water right to determine whether a change in use expands the underlying right to the detriment of other water user because a decree only provides a limited description of the right); Royston, 249 Mont. at 431-32, 816 P.2d at 1059-60 (record could not sustain a conclusion of no adverse effect because the applicant failed to provide the Department with evidence of the historic diverted volume, consumption, and return flow); Hohenlohe, at ¶44-45; Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana

[2] See also Holmstrom Land Co., Inc., v. Newlan Creek Water District,185 Mont. 409, 605 P.2d 1060 (1979); Lokowich v. Helena, 46 Mont. 575, 129 P. 1063(1913); Thompson v. Harvey, 164 Mont. 133, 519 P.2d 963 (1974)(plaintiff could not change his diversion to a point upstream of the defendants because of the injury resulting to the defendants); McIntosh v. Graveley, 159 Mont. 72, 495 P.2d 186 (1972)(appropriator was entitled to move his point of diversion downstream, so long as he installed measuring devices to ensure that he took no more than would have been available at his original point of diversion); Head v. Hale, 38 Mont. 302, 100 P. 222 (1909)(successors of the appropriator of water appropriated for placer mining purposes cannot so change its use as to deprive lower appropriators of their rights, already acquired, in the use of it for irrigating purposes); and, Gassert v. Noyes, 18 Mont. 216, 44 P. 959(1896)(change in place of use was unlawful where reduced the amount of water in the source of supply available which was subject to plaintiff's subsequent right).

[3] A claim only constitutes *prima facie* evidence for the purposes of the adjudication under § 85-2-221, MCA. The claim does not constitute *prima facie* evidence of historical use in a change proceeding under §85-2-402, MCA. For example, most water rights decreed for irrigation are not decreed with a volume and provide limited evidence of actual historic beneficial use. §85-2-234, MCA

Eighteenth Judicial District Court, *Order Re Petition for Judicial Review,* Pgs. 11-12 (proof of historic use is required even when the right has been decreed because the decreed flow rate or volume establishes the maximum appropriation that may be diverted, and may exceed the historical pattern of use, amount diverted or amount consumed through actual use); Matter of Application For Beneficial Water Use Permit By City of Bozeman, *Memorandum*, Pgs. 8-22 (Adopted by DNRC *Final Order* January 9,1985)(evidence of historic use must be compared to the proposed change in use to give effect to the implied limitations read into every decreed right that an appropriator has no right to expand his appropriation or change his use to the detriment of juniors).[4]

44. An applicant must also analyze the extent to which a proposed change may alter historic return flows for purposes of establishing that the proposed change will not result in adverse effect. The requisite return flow analysis reflects the fundamental tenant of Montana water law that once water leaves the control of the original appropriator, the original appropriator has no right to its use and the water is subject to appropriation by others. E.g., Hohenlohe, at ¶44; Rock Creek Ditch & Flume Co. v. Miller, 93 Mont. 248, 17 P.2d 1074, 1077 (1933); Newton v. Weiler, 87 Mont. 164, 286 P. 133(1930); Popham v. Holloron, 84 Mont. 442, 275 P. 1099, 1102 (1929); Galiger v. McNulty, 80 Mont. 339, 260 P. 401 (1927); Head v. Hale, 38 Mont. 302, 100 P. 222 (1909); Spokane Ranch & Water Co., 37 Mont. at 351-52, 96 P. at 731; Hidden Hollow Ranch v. Fields,

[4] Other western states likewise rely upon the doctrine of historic use as a critical component in evaluating changes in appropriation rights for expansion and adverse effect: Pueblo West Metropolitan District v. Southeastern Colorado Water Conservancy District, 717 P.2d 955, 959 (Colo. 1986)("[O]nce an appropriator exercises his or her privilege to change a water right … the appropriator runs a real risk of requantification of the water right based on actual historical consumptive use. In such a change proceeding a junior water right … which had been strictly administered throughout its existence would, in all probability, be reduced to a lesser quantity because of the relatively limited actual historic use of the right."); Santa Fe Trail Ranches Property Owners Ass'n v. Simpson, 990 P.2d 46, 55 -57 (Colo.,1999); Farmers Reservoir and Irr. Co. v. City of Golden, 44 P.3d 241, 245 (Colo. 2002)("We [Colorado Supreme Court] have stated time and again that the need for security and predictability in the prior appropriation system dictates that holders of vested water rights are entitled to the continuation of stream conditions as they existed at the time they first made their appropriation); Application for Water Rights in Rio Grande County, 53 P.3d 1165, 1170 (Colo. 2002); Wyo. Stat. § 41-3-104 (When an owner of a water right wishes to change a water right … he shall file a petition requesting permission to make such a change …. The change … may be allowed provided that the quantity of water transferred … shall not exceed the amount of water historically diverted under the existing use, nor increase the historic rate of diversion under the existing use, nor increase the historic amount consumptively used under the existing use, nor decrease the historic amount of return flow, nor in any manner injure other existing lawful appropriators.); Basin Elec. Power Co-op. v. State Bd. of Control, 578 P.2d 557, 564 -566 (Wyo,1978) (a water right holder may not effect a change of use transferring more water than he had historically consumptively used; regardless of the lack of injury to other appropriators, the amount of water historically diverted under the existing use, the historic rate of diversion under the existing use, the historic amount consumptively used under the existing use, and the historic amount of return flow must be considered.)

2004 MT 153, 321 Mont. 505, 92 P.3d 1185; In the Matter of Application for Change Authorization No. G (W)028708-411 by Hedrich/Straugh/Ringer, DNRC Final Order (Dec. 13, 1991); In the Matter of Application for Change Authorization No. G(W)008323-G76l By Starkel/Koester, DNRC Final Order (Apr. 1, 1992); In the Matter of Application to Change a Water Right No. 41l 30002512 by Brewer Land Co, LLC, DNRC Proposal For Decision and Final Order (2004); Admin. R.M. 36.12.101(56)(Return flow - that part of a diverted flow which is not consumed by the appropriator and returns underground to its original source or another source of water - is not part of a water right and is subject to appropriation by subsequent water users).[5]

45. Although the level of analysis may vary, analysis of the extent to which a proposed change may alter the amount, location, or timing return flows is critical in order to prove that the proposed change will not adversely affect other appropriators who rely on those return flows as part of the source of supply for their water rights. Royston, 249 Mont. at 431, 816 P.2d at 1059-60; Hohenlohe, at ¶¶ 45-6 and 55-6; Spokane Ranch & Water Co., 37 Mont. at 351-52, 96 P. at 731. Noted Montana Water Law scholar Al Stone explained that the water right holder who seeks to change a water right is unlikely to receive the full amount claimed or historically used at the original place of use due to reliance upon return flows by other water users. Montana Water Law, Albert W. Stone, Pgs. 112-17 (State Bar of Montana 1994).

46. In Royston, the Montana Supreme Court confirmed that an applicant is required to prove lack of adverse effect through comparison of the proposed change to the historic use, historic consumption, and historic return flows of the original right. 249 Mont. at 431, 816 P.2d at 1059-60. More recently, the Montana Supreme Court explained the relationship between the fundamental principles of historic beneficial use, return flow, and the rights of subsequent appropriators as they relate to the adverse effect analysis in a change proceeding in the following manner:

> The question of adverse effect under §§ 85-2-402(2) and -408(3), MCA, implicates return flows. A change in the amount of return flow, or to the hydrogeologic pattern of return flow, has the potential to affect adversely downstream water rights. There consequently exists an inextricable link between the "amount historically consumed" and the water that re-enters the stream as return flow. . . .
> An appropriator historically has been entitled to the greatest quantity of water he

[5] The Montana Supreme Court recently recognized the fundamental nature of return flows to Montana's water sources in addressing whether the Mitchell Slough was a perennial flowing stream, given the large amount of irrigation return flow which feeds the stream. The Court acknowledged that the Mitchell's flows are fed by irrigation return flows available for appropriation. Bitterroot River Protective Ass'n, Inc. v. Bitterroot Conservation Dist. 2008 MT 377, ¶¶ 22, 31, 43, 346 Mont. 508, ¶¶ 22, 31,43, 198 P.3d 219, ¶¶ 22, 31,43(*citing* Hidden Hollow Ranch v. Fields, 2004 MT 153, 321 Mont. 505, 92 P.3d 1185).

> can put to use. The requirement that the use be both beneficial and reasonable, however, proscribes this tenet. This limitation springs from a fundamental tenet of western water law-that an appropriator has a right only to that amount of water historically put to beneficial use-developed in concert with the rationale that each subsequent appropriator "is entitled to have the water flow in the same manner as when he located," and the appropriator may insist that prior appropriators do not affect adversely his rights.
>
> This fundamental rule of Montana water law has dictated the Department's determinations in numerous prior change proceedings. The Department claims that historic consumptive use, as quantified in part by return flow analysis, represents a key element of proving historic beneficial use.
>
> We do not dispute this interrelationship between historic consumptive use, return flow, and the amount of water to which an appropriator is entitled as limited by his past beneficial use.

Hohenlohe, at ¶¶ 42-45 (internal citations omitted).

47. The Department's rules reflect the above fundamental principles of Montana water law and are designed to itemize the type evidence and analysis required for an applicant to meet its burden of proof. Admin.R.M. 36.12.1901 through 1903. These rules forth specific evidence and analysis required to establish the parameters of historic use of the water right being changed. Admin.R.M. 36.12.1901 and 1902. The rules also outline the analysis required to establish a lack of adverse effect based upon a comparison of historic use of the water rights being changed to the proposed use under the changed conditions along with evaluation of the potential impacts of the change on other water users caused by changes in the amount, timing, or location of historic diversions and return flows. Admin.R.M. 36.12.1901 and 1903.

48. Applicant seeks to change existing water rights represented by its Water Right Claims. The "existing water rights" in this case are those as they existed prior to July 1, 1973, because with limited exception, no changes could have been made to those rights after that date without the Department's approval. Analysis of adverse effect in a change to an "existing water right" requires evaluation of what the water right looked like and how it was exercised prior to July 1, 1973. In McDonald v. State, the Montana Supreme Court explained:

> The foregoing cases and many others serve to illustrate that what is preserved to owners of appropriated or decreed water rights by the provision of the 1972 Constitution is what the law has always contemplated in this state as the extent of a water right: such amount of water as, by pattern of use and means of use, the owners or their predecessors put to beneficial use. . . . the Water Use Act contemplates that all water rights, regardless of prior statements or claims as to amount, must nevertheless, to be recognized, pass the test of historical,

> unabandoned beneficial use. . . . To that extent only the 1972 constitutional recognition of water rights is effective and will be sustained.

220 Mont. at 529, 722 P.2d at 604; see also Matter of Clark Fork River Drainage Area, 254 Mont. 11, 17, 833 P.2d 1120 (1992).

49. Water Resources Surveys were authorized by the 1939 legislature. 1939 Mont. Laws Ch. 185, § 5. Since their completion, Water Resources Surveys have been invaluable evidence in water right disputes and have long been relied on by Montana courts. In re Adjudication of Existing Rights to Use of All Water in North End Subbasin of Bitterroot River Drainage Area in Ravalli and Missoula Counties, 295 Mont. 447, 453, 984 P.2d 151, 155 (1999)(Water Resources Survey used as evidence in adjudicating of water rights); Wareing v. Schreckendgust, 280 Mont. 196, 213, 930 P.2d 37, 47 (1996)(Water Resources Survey used as evidence in a prescriptive ditch easement case); Olsen v. McQueary, 212 Mont. 173, 180, 687 P.2d 712, 716 (1984) (judicial notice taken of Water Resources Survey in water right dispute concerning branches of a creek).

50. While evidence may be provided that a particular parcel was irrigated, the actual amount of water historically diverted and consumed is critical. E.g., *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, DNRC Proposal for Decision adopted by Final Order (2005). The Department cannot assume that a parcel received the full duty of water or that it received sufficient water to constitute full service irrigation for optimum plant growth. Even when it seems clear that no other rights could be affected solely by a particular change in the location of diversion, it is essential that the change also not enlarge an existing right. See MacDonald, 220 Mont. at 529, 722 P.2d at 604; Featherman, 43 Mont. at 316-17, 115 P. at 986; Trail's End Ranch, L.L.C. v. Colorado Div. of Water Resources 91 P.3d 1058, 1063 (Colo., 2004).

51. The Department has adopted a rule providing for the calculation of historic consumptive use where the applicant proves by a preponderance of the evidence that the acreage was historically irrigated. A. R. M. 36.12.1902 (16). In the alternative an applicant may present its own evidence of historic beneficial use. In this case Applicant has elected to proceed under A.R.M. 36.12.1902. (FOF No.13).

52. If an applicant seeks more than the historic consumptive use as calculated by A.R.M. 36.12.1902 (16), the applicant bears the burden of proof to demonstrate the amount of historic consumptive use by a preponderance of the evidence. The actual historic use of water could be less than the optimum utilization represented by the calculated duty of water in any particular

case. E.g., Application for Water Rights in Rio Grande County 53 P.3d 1165 (Colo., 2002) (historical use must be quantified to ensure no enlargement); In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC., supra; Orr v. Arapahoe Water and Sanitation Dist. 753 P.2d 1217, 1223 -1224 (Colo., 1988)(historical use of a water right could very well be less than the duty of water); Weibert v. Rothe Bros., Inc., 200 Colo. 310, 317, 618 P.2d 1367, 1371 - 1372 (Colo. 1980) (historical use could be less than the optimum utilization "duty of water").

53. Based upon the Applicant's evidence of historic use, the Applicant has proven by a preponderance of the evidence the historic use of Water Right Claim No. 40A 113138-00 or 650.49 AF diverted volume and 3.00 CFS flow rate with a consumptive use of 182.79 acre-feet. (FOF Nos. 18-19)

54. Based upon the Applicant's comparative analysis of historic water use and return flows to water use and return flows under the proposed change, the Applicant has proven that the proposed change in appropriation right will not adversely affect the use of the existing water rights of other persons or other perfected or planned uses or developments for which a permit or certificate has been issued or for which a state water reservation has been issued. §85-2-402(2)(b), MCA. (FOF Nos. 25—33)

BENEFICIAL USE

55. A change applicant must prove by a preponderance of the evidence the proposed use is a beneficial use. §§85-2-102(4) and -402(2)(c), MCA. Beneficial use is and has always been the hallmark of a valid Montana water right: "[T]he amount actually needed for beneficial use within the appropriation will be the basis, measure, and the limit of all water rights in Montana . . ." McDonald, 220 Mont. at 532, 722 P.2d at 606. The analysis of the beneficial use criterion is the same for change authorizations under §85-2-402, MCA, and new beneficial permits under §85-2-311, MCA. Admin.R.M. 36.12.1801. The amount of water that may be authorized for change is limited to the amount of water necessary to sustain the beneficial use. E.g., Bitterroot River Protective Association v. Siebel, *Order on Petition for Judicial Review*, Cause No. BDV-2002-519, Montana First Judicial District Court (2003) (*affirmed on other grounds*, 2005 MT 60, 326 Mont. 241, 108 P.3d 518); Worden v. Alexander, 108 Mont. 208, 90 P.2d 160 (1939); Allen v. Petrick, 69 Mont. 373, 222 P. 451(1924); Sitz Ranch v. DNRC, DV-10-13390, Montana Fifth Judicial

District Court, *Order Affirming DNRC Decision*, Pg. 3 (2011)(citing BRPA v. Siebel, 2005 MT 60, and rejecting applicant's argument that it be allowed to appropriate 800 acre-feet when a typical year would require 200-300 acre-feet); Toohey v. Campbell, 24 Mont. 13, 60 P. 396 (1900)("The policy of the law is to prevent a person from acquiring exclusive control of a stream, or any part thereof, not for present and actual beneficial use, but for mere future speculative profit or advantage, without regard to existing or contemplated beneficial uses. He is restricted in the amount that he can appropriate to the quantity needed for such beneficial purposes."); §85-2-312(1)(a), MCA (DNRC is statutorily prohibited from issuing a permit for more water than can be beneficially used).

56. Applicant proposes to use water for irrigation which is a recognized beneficial use. §85-2-102(5), MCA. Applicant has proven by a preponderance of the evidence irrigation is a beneficial use and that 650.49 acre-feet of diverted volume and 3.00 CFS flow rate of water requested is the amount needed to sustain the beneficial use §85-2-402(2)(c), MCA (FOF Nos. 55—56)

ADEQUATE MEANS OF DIVERSION

57. Pursuant to §85-2-402 (2)(b), MCA, the Applicant must prove by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate. This codifies the prior appropriation principle that the means of diversion must be reasonably effective for the contemplated use and may not result in a waste of the resource. Crowley v. 6th Judicial District Court, 108 Mont. 89, 88 P.2d 23 (1939); In the Matter of Application for Beneficial Water Use Permit No. 41C-11339900 by Three Creeks Ranch of Wyoming LLC (DNRC Final Order 2002)(information needed to prove that proposed means of diversion, construction, and operation of the appropriation works are adequate varies based upon project complexity; design by licensed engineer adequate).

58. Pursuant to §85-2-402 (2)(b), MCA, applicant has proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. (FOF No. 39)

POSSESSORY INTEREST

59. Pursuant to §85-2-402(2)(d), MCA, the Applicant must prove by a preponderance of the evidence that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. See also A.R.M. 36.12.1802

60. The Applicant has proven by a preponderance of the evidence that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. (FOF No. 40)

PRELIMINARY DETERMINATION

Subject to the terms and analysis in this Preliminary Determination Order, the Department preliminarily determines that this Application to Change claim No. 40A 30155100 should be **GRANTED** subject to the following.

The Applicant may change the place of use and add a point of diversion of Claim 40A 113138-00. After this change, a total of 400.82 acres will be irrigated with Claim 113138-00, including 209.17 acres within the historical 242-acre place of use, and an additional 191.65 acres located in Sections 19, 20, and 21 of Township 6 North, Range 16 East that will also be supplementally irrigated with Claim 40A 113145-00. A total of 32.81 acres of historical flood irrigation will be retired from irrigation to compensate for 24.78 AF of consumed water required to irrigate the additional 191.65-acre place of use that cannot be supplemented by Claim 40A 113145-00. After this change, a flow rate of up to 3 CFS and volume of 24.78 AF will be diverted into Cooney Ditch #1 for the purposes of irrigating the 191.65-acre portion of the post change place of use, and a flow rate of up to 3 CFS and volume of 625.71 AF will continue being diverted into Cooney Ditch #2 for continued irrigation of 209.19 acres in the historical place of use. In aggregate, the maximum combined flow rate and volume of water that will be diverted into both points of diversion cannot exceed 3 CFS at any given time and the historically diverted volume of 650.49 AF.

This change will be subject to the following measurement condition:

MEASUREMENT CONDITION

> The Appropriator shall install a department-approved measuring device in the conveyance facility as near as practical to the point of diversion, in order to measure the total flow rate and volume appropriated annually. The type and location of the device must be approved by the Department. The Appropriator shall keep a written record of the flow rate and volume of water diverted, including the period of time of diversion, under this authorization. Records shall be submitted by December 31 of each year until a project completion notice

has been received by the Department, and upon request by the Department thereafter. Failure to submit reports may be cause for revocation of the change. Records must be sent to the Lewistown Water Resources Regional Office. The Appropriator shall maintain the measuring/monitoring device so it always operates properly and measures flow rate accurately during periods of appropriation.

Submit records to:
Lewistown Water Resources Office

NOTICE

This Department will provide public notice of this Application and the Department's Preliminary Determination to Grant pursuant to §85-2-307, MCA. The Department will set a deadline for objections to this Application pursuant to §§85-2-307, and -308, MCA. If this Application receives a valid objection, it will proceed to a contested case proceeding pursuant to Title 2 Chapter 4 Part 6, MCA, and §85-2-309, MCA. If this Application receives no valid objection or all valid objections are unconditionally withdrawn, the Department will grant this Application as herein approved. If this Application receives a valid objection(s) and the valid objection(s) are conditionally withdrawn, the Department will consider the proposed condition(s) and grant the Application with such conditions as the Department decides necessary to satisfy the applicable criteria. E.g., §§85-2-310, -312, MCA.

DATED this 5th day of May 2023.

/Original signed by Steven Hamlton/
Steven Hamilton, Manager
Lewistown Regional Office
Department of Natural Resources
and Conservation

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 5th day of May 2023, by first class United States mail.

LETA NASH; RACHAEL NASH; COONEY BROTHERS FAMILY PARTNERSHIP; COONEY, CAVAN SPENCER LLC.
PO BOX 626
HARLOWTON, MT 59036

OTTO W. OHLSON
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WHITE SULPHUR SPRINGS, MT 59645

Steven Hamilton
Regional Manager
Lewistown Regional Office
(406) 538-7459

APPENDIX A: CALCULATION SPREADSHEET FOR CHG 40A 30155199

606 SW 40A 30155099 Cooney

Historic Consumptive Volume (HCV) Flood Sprinkler	Wheatland Co / Harlowton Weather Station County Flood/Sprinkler ET *(Inches)*	Wheatland County 1964-1973 Management Factor *(Percent)*	Historic Acres	HCV AF *(minus IL)*	On-farm Efficiency *(Percent)*	Field Application AF	Historic Irrecoverable Losses *(IL) Flood 5%:*	**HCV AF *(Including IL)***
	17.83	***46.6%***	***242***	167.56	***55%***	304.66	15.23	**182.79**

Historic Diverted Volume (HDV)	HCV AF *(minus IL)*	On-farm Efficiency	Seasonal Conveyance Loss Volume (seepage loss + vegetation loss + ditch evaporation)	**Total HDV AF**	
	167.56	55%	345.84	**650.49**	
Seepage Loss:	Ditch Wetted Perimeter (Feet)	Ditch Length *(Feet)*	Ditch Loss Rate (ft3/ft2/day)	Days Irrigated	Seepage Loss *(/43560)*
	8	***16681***	***0.60***	***169***	310.64
Vegetation Loss:	% loss/mile	Historic Flow Rate (HFR) *(CFS)* =	Days Irrigated	ditch length *(miles)*	Vegetation Loss (*2)
	0.0075	***4.00***	169	3.16	32.04
Ditch Evaporation:	Ditch Width *(Feet)*	Ditch Length *(Feet)*	Evaporation *(Potts)*	Ditch Evaporation *(/43560)*	
	3.00	16681.00	***2.75***	3.16	

Proposed Consumptive Volume (PCV) Exising flood irrigation system	Wheatland Co / Harlowton Weather Station Flood/Sprinkler ET (Inches)	Wheatland County 1964-1973 Management Factor (Percent)	Proposed New Acres	PCV AF *(minus IL)*	On-farm Efficiency *(Percent)*	Field Application AF	Proposed Irrecoverable Losses (IL) Flood 5%	**PCV AF *(Including IL)***
Flood acres	***17.83***	***46.6%***	***-32.81***	-22.72	***55%***	-41.30	-2.07	-24.78

Proposed Consumptive Volume (PCV) Exising flood irrigation system	Wheatland Co / Harlowton Weather StationCenter Pivot Irrigation ET *(Inches)*	Wheatland County 1997-2006 Management Factor *(Percent)*	Proposed New Acres	PCV AF *(minus IL)*	On-farm Efficiency *(Percent)*	Field Application AF	Proposed Irrecoverable Losses (IL) Sprinkler 10%	**PCV AF *(Including IL)***
Pivot acres	***20.56***	***54.4%***	***0***	0.00	***90%***	0.00	0.00	0.00
Total			**-32.81**	**-22.72**		**-41.30**		**-24.78**

APPENDIX B: CALCULATION SPREADSHEET FOR CHG 40A 30155100

606 SW 40A 30155100 Cooney

Wheatland Co / Harlowton Weather Station County Flood/Sprinkler ET *(Inches)*	Wheatland County 1964-1973 Management Factor *(Percent)*	Historic Acres	HCV AF *(minus IL)*	On-farm Efficiency *(Percent)*	Field Application AF	Historic Irrecoverable Losses *(IL) Flood 5%:*	**HCV AF *(Including IL)***
17.83	***46.6%***	***189.95***	131.52	***55%***	239.13	11.96	**143.48**

HCV AF *(minus IL)*	On-farm Efficiency	Seasonal Conveyance Loss Volume (seepage loss + vegetation loss + ditch evaporation)	**Total HDV AF**	
131.52	55%	1044.34	**1283.47**	
Ditch Wetted Perimeter (Feet)	Ditch Length *(Feet)*	Ditch Loss Rate (ft3/ft2/day)	Days Irrigated	Seepage Loss *(/43560)*
8	***20544***	***1.40***	***187***	987.77
% loss/mile	Historic Flow Rate (HFR) *(CFS)* =	Days Irrigated	ditch length *(miles)*	Vegetation Loss (*2)
0.0075	***5.00***	187	3.89	54.57
Ditch Width *(Feet)*	Ditch Length *(Feet)*	Evaporation *(Potts)*	Ditch Evaporation *(/43560)*	
3.00	20544.00	***1.41***	1.99	

Wheatland Co / Harlowton Weather Station Flood/Sprinkler ET (Inches)	Wheatland County 1964-1973 Management Factor *(Percent)*	Acres Removed	PCV AF *(minus IL)*	On-farm Efficiency *(Percent)*	Field Application AF	Proposed Irrecoverable Losses (IL) Flood 5%	**PCV AF *(Including IL)***
17.83	***46.6%***	***80.81***	55.95	***55%***	101.73	5.09	61.04

Wheatland Co / Harlowton Weather StationCenter Pivot Irrigation ET *(Inches)*	Wheatland County 1997-2006 Management Factor *(Percent)*	Proposed New Acres	PCV AF *(minus IL)*	On-farm Efficiency *(Percent)*	Field Application AF	Proposed Irrecoverable Losses (IL) Sprinkler 10%	**PCV AF *(Including IL)***
20.56	***54.4%***	***82.51***	76.90	***90%***	85.45	8.54	85.45
		1.7	**20.95**		**-16.28**		**24.41**

APPENDIX C: CALCULATION SPREADSHEET FOR COMBINED CHGS 40A 30155100 + 40A 30155099

Wheatland Co / Harlowton Weather Station County Flood/Sprinkler ET *(Inches)*	Wheatland County 1964-1973 Management Factor *(Percent)*	Historic Acres	HCV AF *(minus IL)*	On-farm Efficiency *(Percent)*	Field Application AF	Historic Irrecoverable Losses *(IL) Flood 5%:*	**HCV AF *(Including IL)***
17.83	***46.6%***	***492.3***	340.87	***55%***	619.76	30.99	**371.86**

HCV AF *(minus IL)*	On-farm Efficiency	Seasonal Conveyance Loss Volume (seepage loss + vegetation loss + ditch evaporation)	**Total HDV AF**	
340.87	55%	1044.34	**1664.10**	
Ditch Wetted Perimeter (Feet)	Ditch Length *(Feet)*	Ditch Loss Rate (ft3/ft2/day)	Days Irrigated	Seepage Loss *(/43560)*
8	***20544***	***1.40***	***187***	987.77
% loss/mile	Historic Flow Rate (HFR) *(CFS)* =	Days Irrigated	ditch length *(miles)*	Vegetation Loss (*2)
0.0075	***5.00***	187	3.89	54.57
Ditch Width *(Feet)*	Ditch Length *(Feet)*	Evaporation *(Potts)*	Ditch Evaporation *(/43560)*	
3.00	20544.00	***1.41***	1.99	

Wheatland Co / Harlowton Weather Station Flood/Sprinkler ET (Inches)	Wheatland County 1964-1973 Management Factor *(Percent)*	Acres Removed	PCV AF *(minus IL)*	On-farm Efficiency *(Percent)*	Field Application AF	Proposed Irrecoverable Losses (IL) Flood 5%	**PCV AF *(Including IL)***
17.83	***46.6%***	***113.64***	78.68	***55%***	143.06	7.15	85.84

Wheatland Co / Harlowton Weather StationCenter Pivot Irrigation ET *(Inches)*	Wheatland County 1997-2006 Management Factor *(Percent)*	Proposed New Acres	PCV AF *(minus IL)*	On-farm Efficiency *(Percent)*	Field Application AF	Proposed Irrecoverable Losses (IL) Sprinkler 10%	**PCV AF *(Including IL)***
20.56	***54.4%***	***82.51***	76.90	***90%***	85.45	8.54	85.45
		-31.13	**-1.78**		**-57.61**		**-0.39**

APPENDIX D: 32.83 ACRES PROPOSED FOR RETIREMENT